

Claims

1. A method of controlling the flow of working medium through an expansion device (1) for use in a closed heating system which in addition to the expansion device (1) also includes a condenser (13), a pump (16) and a boiler (10), wherein the expansion device consists in a helical screw rotor expander that has an inlet port (2) an inlet line (11) connected thereto, and an outlet port (3), wherein the expansion device drives an energy producing device (G), for instance a generator, **characterized by** providing the helical screw rotor expander(1) with an intermediate pressure port (4) between the inlet port (2) and the outlet port (3), by connecting the intermediate pressure port (4) with the inlet line (11) via a branch line (18) between the intermediate pressure port (4) and a branching point (21) in the inlet line, by including a valve (19) in the branch line (18), and by controlling the flow of working medium through the valve (19) to the intermediate pressure port (4) as a function of a state parameter.
2. A method according to Claim 1, **characterized by** using the pressure of the working medium as the state parameter
3. A method according to Claim 1, **characterized by** using the temperature of the working medium as the state parameter
4. A method according to Claim 1, **characterized by** using the energy delivered by the expander as the state parameter.
5. A method according to Claim 1, **characterized by** using the energy delivered to the heating system as the state parameter.
6. An arrangement for controlling the flow of working medium through an expansion device (1) for use in a closed heating system which in addition to the expansion device (1) also includes a condenser (13), a pump (16) and a boiler (10) together with requisite connection lines (11, 14,, 15), wherein the

expansion device consists in a helical screw rotor expander that has an inlet port (2) an inlet line (11) connected thereto, and an outlet port (3), wherein the expansion device (1) drives an energy producing device (G), for instance a generator, **characterized** in that in that the helical screw rotor expander(1) includes an intermediate pressure port (4) between the inlet port (2) and the outlet port (3); in that the arrangement includes a branch line (18) which connects the intermediate pressure port (4) with the inlet line (11) at a branching point (21), and in that the arrangement also includes a valve (19) in the branch line (18).

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7. An arrangement according to Claim 6, **characterized** in that the valve (19) is a control valve.

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